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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/660,941      | 09/12/2003  | Cary R. Bybee        | 200208121           | 7031             |

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EXAMINER

VO, ANH T N

ART UNIT PAPER NUMBER

2861

DATE MAILED: 07/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

sm

**Office Action Summary**

Application No.

10/660,941

Applicant(s)

BYBEE ET AL.

Examiner

Anh T.N. Vo

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) 10-13 and 23-52 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8, 9, 14 and 22 is/are rejected.
- 7) ☐ Claim(s) 7 and 15-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/12/2003.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Claims 10-13 and 23-52 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made without traverse filed on 05/04/2002.

### ***Information Disclosure Statement***

The references cited on PTO 1449 have been considered.

### ***Claim Objection***

Claims 1, 6, and 14 are objected to because of the following informalities-

- \* In claim 1, line 6, --in said piston-- should be inserted after "pressure".
- \* In claim 6, line 2 and line 3, --second-- and --in said portion-- should be inserted before "convolute" and after "pressure" respectively.
- \* In claim 14, line 9, "again" should be changed to --against-- and --in said piston-- should be inserted after "pressure".

Appropriate correction is required.

### ***Drawings Object to***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the recitations "a plurality of pressure tuned rolling pistons", "said plurality of pressure tuned rolling pistons comprises three pressure tuned rolling pistons" and "said plurality of pressure tuned rolling pistons provide a plurality of ink colors, each differently colored ink being separately contained within one of said plurality of

pressure tuned rolling pistons” as recited in claims 19-21 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

### ***CLAIM REJECTIONS***

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 and 8-9 are rejected under 35 USC 102 (b) as being anticipated by Iwata et al. (US Pat. 5,608,437).

Iwata et al. disclose in Figures 12A-12C an ink container comprising:

- a pressure tuned rolling piston (12) comprising a distal end having a pressure responsive portion (12d);
- and a first convolute portion (12b) coupled to said pressure responsive portion (12d), said first convolute portion being configured to provide a first level of resistance against a negative pressure;
- wherein said pressure tuned rolling piston (12) comprises an elastomeric material;
- wherein said elastomeric material comprises EPDM/Butyl (column6, line 39 and line 64-67);
- wherein said pressure tuned rolling piston (12) comprises walls of substantially uniform thickness;
- wherein said pressure responsive portion (12d) comprises a generally planar portion;
- a fitment (14) coupled to a proximal end of said piston (12), the proximal end opposite said distal end; and a fitment coupled (14) to said proximal end of said pressure tuned rolling piston (12); and

- wherein said fitment (14) further comprises a fluid interconnect (15).

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 14 and 22 are rejected under 35 USC 103 (a) as being unpatentable over by Iwata et al. (US Pat. 5,608,437) in view of Burger (US Pat. 5,187,498).

Iwata et al. disclose the basic features of the claimed invention were stated above but do not disclose a second convolute portion adjacent said first convolute portion, wherein said second convolute portion is configured to provide further resistance against said negative pressure.

Burger discloses in Figure 6 an ink supply container comprising a second convolute portion (12) adjacent said first convolute portion (12), wherein said second convolute portion is configured to provide further resistance against said negative pressure.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Burger in the Iwata et al. ink container for the purpose of supplying ink at a low pressure.

*Citation of Pertinent Prior Art*

The prior art made of record and not relied upon is considered pertinent to applicant's

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disclosure. The prior art references (US Pat. 4,162,501; US Pat. 4,992,802; US Pat. 5,136,309; US Pat. 6,386,693; US Pat. 6,428,152; US Pat. 6,478,415; US Pat. 6,824,256; US Pat. 6,908,180; US Pat. 6,783,215) cited in the PTO 892 form show an ink cartridge that is deemed to be relevant to the present invention. These references should be reviewed.

***Allowable Subject Matter***

Claims 7 and 15-16 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. These claims would be allowable because none of the prior art references of record discloses an ink delivery apparatus comprising a second convolute portion of a pressure tuned rolling piston is larger than a perimeter of a first convolute portion of the pressure tuned rolling piston in the combination as claimed

Claims 17-18 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. These claims would be allowable because none of the prior art references of record discloses an ink delivery assembly comprising a first convolute portion of a pressure tuned rolling piston includes a first aspect ratio and a second convolute portion of the pressure tuned rolling piston includes a second aspect ratio, and wherein said first aspect ratio is larger than said second aspect ratio in the combination as claimed.

Claims 19-21 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. These claims would be allowable because none of the prior art references of record discloses an ink delivery assembly comprising a plurality of pressure tuned rolling pistons in the combination as claimed.

***CONCLUSION***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262. The examiner can normally be reached on Tuesday to Friday from 9:00 A.M. to 7:30 P.M..

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The fax number of this Group 2861 is (571) 273-8300.



**ANH T. N. VO**  
**PRIMARY EXAMINER**  
July 15, 2005